ABSTRACT OF THE DISCLOSURE

For optimization of a direct current developing bias Vavg, a patch image Ivn is formed whose length is longer than a circumferential length L0 of a photosensitive member. From an average value of sensor outputs sampled over the length L0 of the patch image, a toner density of the patch image Ivn is calculated and a value corresponding to an average value ODavg of optical densities OD is accordingly found. This cancels an influence of density variations appearing in association with rotating cycles of the photosensitive member exerted over a patch image.

(Fig. 22)